WEAR CONTAMINATION FLUID CONDITION

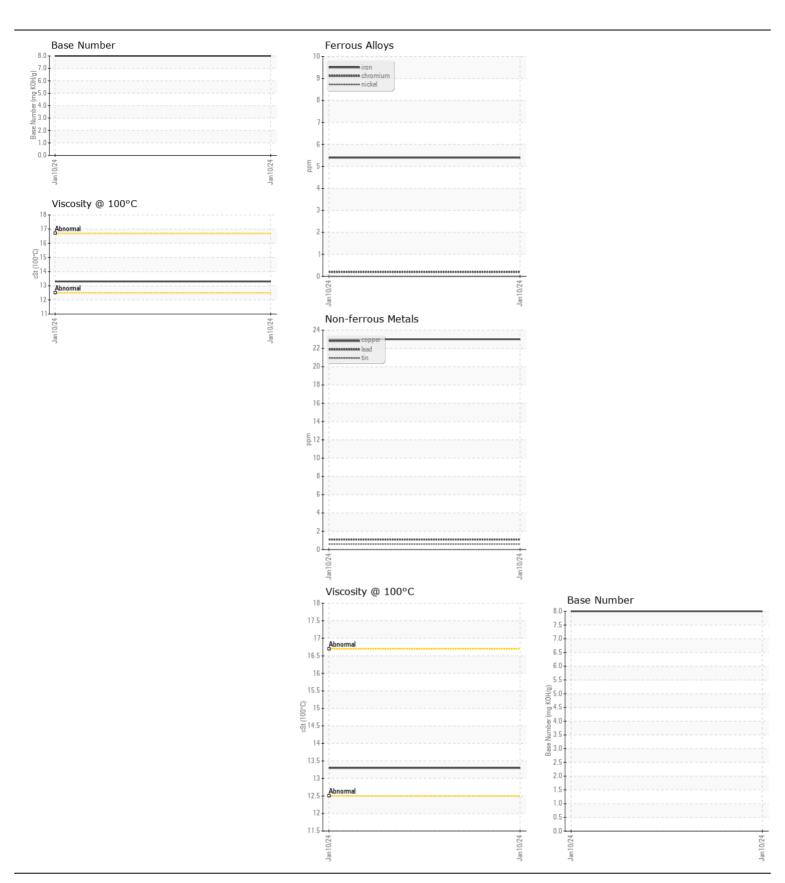
NORMAL NORMAL

Machine Ic

HAMM HC 70I H2870055

Component
Diesel Engine

| Diesel Engine | | | | | | | |
|---|------------------|-------------|-------------|-------------|-------------|----------|----------|
| {not provided} (GAL) | | | | | | | |
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| RECOMMENDATION | Sample Number | OOW | Client Info | LIIIIU/ADII | JR0195610 | | |
| Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. | Sample Date | | Client Info | | 10 Jan 2024 | | |
| | Machine Age | hrs | Client Info | | 20 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | 1110 | Client Info | | Not Changd | | |
| | Filter Changed | | Client Info | | Not Changd | | |
| | Sample Status | | | | NORMAL | | |
| MEAD | lvan | | ACTM DE10Em | . 100 | | | |
| WEAR | Iron | ppm | ASTM D5185m | | 5 | | |
| Metal levels are typical for a new component breaking in. | Chromium | ppm | ASTM D5185m | | <1 | | |
| | Nickel | ppm | ASTM D5185m | >4 | 0 | | |
| | Titanium | ppm | ASTM D5185m | 0 | 0 | | |
| | Silver | ppm | ASTM D5185m | | 0 | | |
| | Aluminum | ppm | ASTM D5185m | | 3 | | |
| | Lead | ppm | ASTM D5185m | | 1 | | |
| | Copper | ppm | ASTM D5185m | | 23 | | |
| | Tin | ppm | ASTM D5185m | >15 | <1 | | |
| | Vanadium | ppm | ASTM D5185m | | 0 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 10 | | |
| | Potassium | ppm | ASTM D5185m | | 2 | | |
| There is no indication of any contamination in the oil. | Fuel | le le · · · | WC Method | | <1.0 | | |
| | Water | | WC Method | | NEG | | |
| | Glycol | | WC Method | 7 0.2 | NEG | | |
| | Soot % | % | *ASTM D7844 | >3 | 0 | | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 7.0 | | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 16.3 | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | NONE | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| | Appearance | scalar | *Visual | NORML | NORML | | |
| | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | | | >0.2 | NEG | | |
| | | | | | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 3 | | |
| The BN result indicates that there is suitable alkalinity remaining in the | Boron | ppm | ASTM D5185m | | 81 | | |
| oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 76 | | |
| | Manganese | ppm | ASTM D5185m | | 2 | | |
| | Magnesium | ppm | ASTM D5185m | | 72 | | |
| | Calcium | ppm | ASTM D5185m | | 2133 | | |
| | Phosphorus | ppm | ASTM D5185m | | 1024 | | |
| | Zinc | ppm | ASTM D5185m | | 1146 | | |
| | Sulfur | ppm | ASTM D5185m | | 4327 | | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.3 | | |
| | Base Number (BN) | | | | 8.0 | | |
| | Visc @ 100°C | cSt | ASTM D445 | | 13.3 | | |







Laboratory Sample No. Lab Number

Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : JR0195610 : 06060815 : 10832197

Recieved Diagnosed

: 16 Jan 2024 : 17 Jan 2024 Diagnostician : Wes Davis

Test Package : CONST (Additional Tests: TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

JRE - STEPHENSON 245 YARDMASTER COURT STEPHENSON, VA US 22656-1761

Contact: PHIL DAUGHERTY

pdaugherty@jamesriverequipment.com T: x:

Contact/Location: PHIL DAUGHERTY - JAMWIN

F: (540)693-2588